



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/583,237

05/08/2007

Rainer Kuehne

10191/4452

8257

26646 7590 07/21/2009

KENYON & KENYON LLP
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

MANCUSO, HUEDUNG XUAN CAO

ART UNIT

PAPER NUMBER

2821

MAIL DATE

DELIVERY MODE

07/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,237	Applicant(s) KUEHNE, RAINER	
	Examiner HUEDUNG Cao MANCUSO	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-19 is/are rejected.
- 7) ☒ Claim(s) 20-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2821

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 10-19 have been considered and are persuasive. New rejections are applied below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10, 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asakawa (JP 2002-084119).

As to claim 10, Asakawa teaches a window integrated antenna in the vehicle, comprising: a heat conductor field [2] provided for at least one of FM reception, TV reception, and LMS reception; and at least one decoupling element [24] for at least the LMS reception, at least one decoupling element including a high frequency and non galvanic connection to the heating conductor field see Akasawa [figures 3, and 5, element 24], wherein the at least one decoupling element is situated in the heating conductor field between two adjacent heating conductors which Asakawa does not explicitly disclose. However, the positioning of the decoupling element within the device is something that one of ordinary skill would be well aware of and limiting

Art Unit: 2821

interference would have led a person of ordinary skill in the art to put the decoupling element in the location where it would be most effective when balancing the conventional considerations.

As to claim 13, antenna conductors [62,129,130,132,133] situated in the heating conductor field substantially perpendicular to the heating conductors and galvanically linked to the heating conductors see Akasawa [figures 3, and 5].

As to claim 14, wherein the antenna conductors [62,129,130,132,133] are designed, with regard to at least one of a length and a position thereof, in such a way that a resonance like behavior of the antenna occurs at a connection end of the at least one decoupling element in an FM range see Akasawa [figures 3, and 5].

As to claim 15, wherein the at least one decoupling element includes at least one of a straight line conductor, an open conductor, and a closed conductor loop see Akasawa [figures 3, and 5, element 24].

As to claim 16, wherein a grounding point for decoupling at least one of an LMS antenna signal, an FM antenna signal, and a TV antenna signal is located in a proximity of a connection end of the at least one decoupling element see Akasawa [figures 3-5].

As to claims 17, wherein at least one FM/TV antenna signal decoupling [24] is provided that is galvanic linked to the heating conductor field, and to a busbar [3,4] situated at a distance from a connection end of the at least one decoupling element.

As to claim 18, wherein a distance of the at least one decoupling element to one of the heating conductors is selected to be so close that a capacitive coupling with the heating conductor is ensured for FM/TV frequencies see Akasawa [figures 3, and 5, element 24].

Art Unit: 2821

As to claim 19, wherein the at least one decoupling element includes one of a straight line conductor and a conductor loop see Akasawa [figures 3, and 5, element 24].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asakawa (JP 2002-084119).

As to claims 11, and 12, wherein at least one decoupling element [24] is for the FM reception and TV reception which Akasawa does not explicitly disclose. However, it would have been obvious to one of ordinary skill in the art to use Akasawa's decoupling for FM reception and TV reception in order to achieve the efficient and usefull system.

Allowable Subject Matter

6. Claims 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach that an FM/TV choke provided in a heating circuit; and antenna conductors situated in the heating conductor field substantially perpendicularly to the heating conductors and

Art Unit: 2821

galvanically linked to the heating conductors; wherein the at least one decoupling element is for the FM reception and the TV reception, and wherein the antenna conductors are designed, with regard to at least one of a length and a position thereof, so that a resonance-like behavior of the antenna occurs at a connection end of the at least one decoupling element in an FM range, and wherein the at least one decoupling element includes at least one of a straight-line conductor, an open conductor loop, and a closed conductor loop; a grounding point for decoupling at least one of an LMS antenna signal, an FM antenna signal, and a TV antenna signal is located in a proximity of a connection end of the at least one decoupling element, at least one further FM/TV antenna signal decoupling is provided that is galvanically linked to the heating conductor field, and to a busbar situated at a distance from a connection end of the at least one decoupling element, a distance of the at least one decoupling element to one of the heating conductors is selected to be so close that a capacitive coupling with the heating conductor is ensured for FM/TV frequencies, and the at least one decoupling element includes one of a straight-line conductor and a conductor loop.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUEDUNG Cao MANCUSO whose telephone number is (571)272-1939. The examiner can normally be reached on 6:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2821

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Huedung Cao Mancuso/
Examiner, Art Unit 2821